

# ABSTRACT

In accordance with one aspect of the invention, a selector supports the selection of a first encoding scheme or the second encoding scheme based upon the detection or absence of the triggering characteristic in the interval of the input speech signal. The first encoding scheme has a pitch pre-processing procedure for  
5 processing the input speech signal to form a revised speech signal biased toward an ideal voiced and stationary characteristic. The pre-processing procedure allows the encoder to fully capture the benefits of a bandwidth-efficient, long-term predictive procedure for a greater amount of speech components of an input speech signal than would otherwise be possible. In accordance with another aspect of the invention, the  
10 second encoding scheme entails a long-term prediction mode for encoding the pitch on a sub-frame by sub-frame basis. The long-term prediction mode is tailored to where the generally periodic component of the speech is generally not stationary or less than completely periodic and requires greater frequency of updates from the adaptive codebook to achieve a desired perceptual quality of the reproduced speech  
15 under a long-term predictive procedure.